

CLAIMS:

1. A system, comprising:
 - a first structure in communication with a first medium; and
 - a second structure housing a seal assembly between the first and second structures, the seal assembly comprising:
 - an interface seal disposed against the first structure; and
 - a flexible seal pressuringly biased against the second structure and the interface seal by a second medium.
2. The system of claim 1, wherein the first structure is an inner shroud and the second structure is an outer shroud.
3. The system of claim 1, wherein the first medium is hot gas and the second medium is a cooling gas.
4. The system of claim 1, wherein the system comprises a gas turbine engine.
5. The system of claim 1, wherein the interface seal comprises a ceramic material.

6. The system of claim 1, wherein the interface seal comprises a rope seal.
7. The system of claim 1, wherein the interface seal comprises a block seal.
8. The system of claim 1, wherein the interface seal comprises a plurality of seal members.
9. The system of claim 1, wherein the flexible seal comprises a metal.
10. The system of claim 1, wherein the flexible seal comprises a C-shaped structure.
11. The system of claim 1, wherein the flexible seal comprises a U-shaped structure.
12. The system of claim 1, wherein the flexible seal comprises a W-shaped structure.
13. The system of claim 1, wherein the seal assembly is preloaded by the second medium.

14. A seal, comprising:

a first seal mechanism adapted for insertion between a first structure and a second structure, wherein the first structure is in communication with a first medium and the second structure is in communication with a second medium; and

a second seal mechanism, which is pressuringly biasable against the first seal mechanism and against the second structure by the second medium.

15. The seal of claim 14, wherein the first structure is an inner shroud and the second structure is an outer shroud.

16. The seal of claim 14, the first medium is a hot gas and the second medium is a purge gas relatively colder than the hot gas.

17. The seal of claim 14, wherein the first seal mechanism comprises a ceramic material.

18. The seal of claim 14, wherein the first seal mechanism comprises a rope seal structure.

19. The seal of claim 14, wherein the first seal mechanism comprises a block seal structure.

20. The seal of claim 14, wherein the first seal mechanism comprises a plurality of seal members.

21. The seal of claim 14, wherein the second seal mechanism comprises a metal.

22. The seal of claim 14, wherein the second seal mechanism comprises a C-shaped structure.

23. The seal of claim 14, wherein the second seal mechanism comprises a U-shaped structure.

24. The seal of claim 14, wherein the second seal mechanism comprises a W-shaped structure.

25. The seal of claim 14, wherein the first seal mechanism comprises a rope seal structure and the second seal mechanism is selected from the group consisting of a C-shaped structure, a U-shaped structure, and a W-shaped structure.

26. A system, comprising:

means for sealingly interfacing a first structure adjacent a second structure, wherein the first structure is in communication with a first medium and the second structure is in communication with a second medium; and

means for pressurably and sealingly interfacing both the second structure and the means for sealingly interfacing the first structure to provide a pressure-loaded seal with both the first structure and the second structure.

27. The system of claim 26, wherein the first structure is an inner shroud and the second structure is an outer shroud.

28. The system of claim 26, wherein the first medium is hot gas and the second medium is a purge gas relatively cooler than the hot gas.

29. The system of claim 26, wherein the system comprises a gas turbine engine.

30. A method, comprising:

engaging a first seal against a first structure adjacent a second structure, wherein the first structure is in communication with a first medium and the second structure is in communication with a second medium; and

pressuringly biasing a second seal against the first seal and against the second structure with pressure of the second medium.

31. The method of claim 30, wherein engaging the first seal comprises interfacing a rope seal against the first structure.

32. The method of claim 30, wherein engaging the first seal comprises interfacing a block seal against the first structure.

33. The method of claim 30, wherein engaging the first seal comprises interfacing a plurality of seal members against the first structure.

34. The method of claim 30, wherein pressuringly biasing the second seal comprises pressuring a C-seal flexibly against the first seal and against the second structure.

35. The method of claim 30, wherein pressuringly biasing the second seal comprises pressuring a U-seal flexibly against the first seal and against the second structure.

36. The method of claim 30, wherein pressuringly biasing the second seal comprises pressuring a W-seal flexibly against the first seal and against the second structure.

37. The method of claim 30, further comprising preloading the second seal by the second medium.

38. A method, comprising:

providing a first seal engagable with a first structure adjacent a second structure, the first structure being adapted to communicate with a first medium and the second structure being adapted to communicate with a second medium separate from the first medium; and

providing a second seal pressurably biasable by the second medium against the first seal and against the second structure.

39. The method of claim 38, wherein providing the first seal comprises providing a rope seal.

40. The method of claim 38, wherein providing the first seal comprises providing a block seal.

41. The method of claim 38, wherein providing the first seal comprises providing a plurality of seal members.

42. The method of claim 38, wherein providing the second seal comprises providing a C-shaped seal.

43. The method of claim 38, wherein providing the second seal comprises providing a U-shaped seal.

44. The method of claim 38, wherein providing the second seal comprises providing a W-shaped seal.

45. A system for pneumatically sealing a gas path in an engine, comprising:

a rope seal adapted for insertion between an inner shroud and an outer shroud of the engine, wherein the inner shroud is in communication with a hot gas and the

outer shroud is in communication with a purge gas relatively colder than the hot gas; and

a C-shaped seal, which is pressuringly biasable against the rope seal and against the outer shroud by the purge gas.

46. The system of claim 45, wherein a concave surface of the C-shaped seal is disposed against the rope seal.

47. The system of claim 46, wherein a convex surface of the C-shaped seal is disposed against the rope seal

48. A system for pneumatically sealing a gas path in an engine, comprising:

a rope seal adapted for insertion between an inner shroud and an outer shroud of the engine, wherein the inner shroud is in communication with a hot gas and the outer shroud is in communication with a purge gas relatively colder than the hot gas; and

a U-shaped seal, which is pressuringly biasable against the rope seal and against the outer shroud by the purge gas.

49. A system for pneumatically sealing a gas path in an engine, comprising:

a ceramic block seal adapted for insertion between an inner shroud and an outer shroud of the engine, wherein the inner shroud is in communication with a hot

gas and the outer shroud is in communication with a purge gas relatively colder than the hot gas; and

a U-shaped seal, which is pressuringly biasable against the ceramic block seal and against the outer shroud by the purge gas.

50. A system for pneumatically sealing a gas path in an engine, comprising:

a rope seal adapted for insertion between an inner shroud and an outer shroud of the engine, wherein the inner shroud is in communication with a hot gas and the outer shroud is in communication with a purge gas relatively colder than the hot gas; and

a W-shaped seal, which is pressuringly biasable against the rope seal and against the outer shroud by the purge gas.